J. M. RODMAN.

Subsoil Plow.

No. { 555, / 31,559. }

Patented Feb. 26, 1861.

Fig: 1.

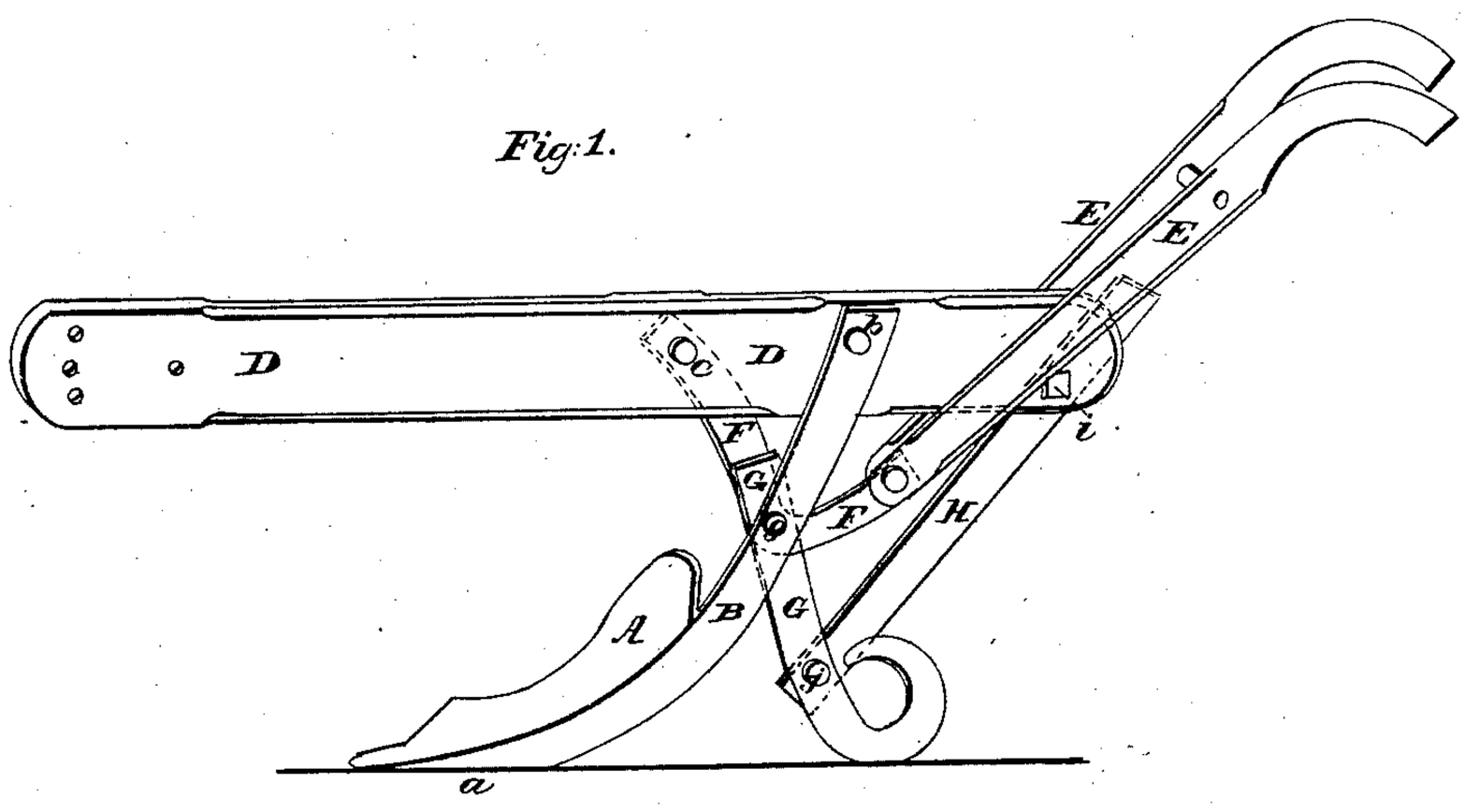
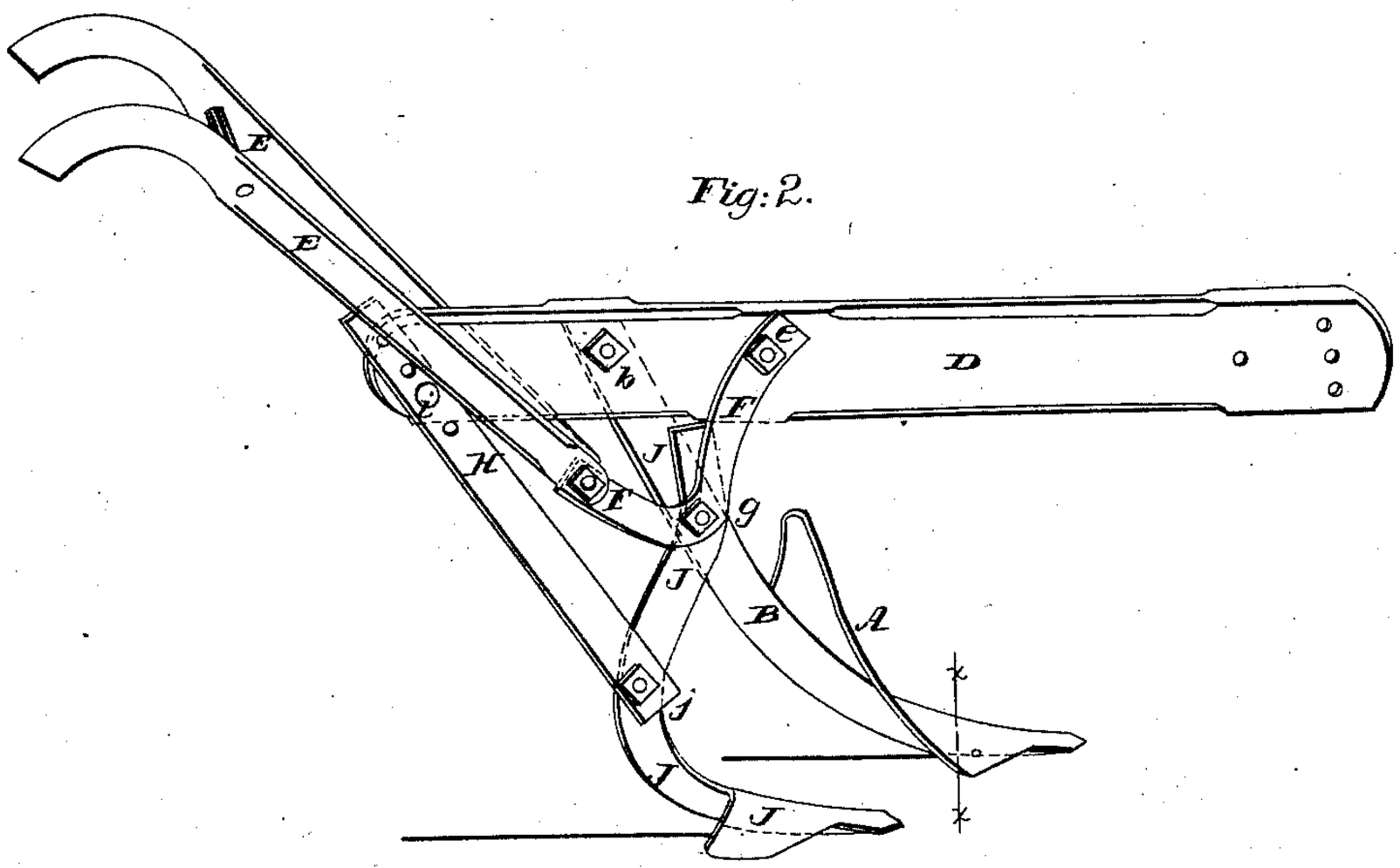


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

J. M. RODMAN, OF SOUTH UNION, KENTUCKY.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **31,559**, dated February 26, 1861.

To all whom it may concern:

Be it known that I, J. M. RODMAN, of South Union, in the county of Logan and State of Kentucky, have invented a new and Improved Turn-Plow; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved plow when it is used for a surface-plow only. Fig. 2 represents the subsoil-plowshare attached in rear of the surface-share.

Similar letters of reference indicate corresponding parts in both figures.

My invention consists in bracing and steadying the plow-body by a curved brace connected to the lower ends of the stilts and to the plow-beam, and in combining with this curved brace a foot-piece and an adjustable brace for this foot-piece, the whole being so constructed and arranged that the stock of a subsoil-plow may be introduced in the place of the foot-piece and properly adjusted by the brace of said foot-piece, all as will be hereinafter described.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is a mold-board of a light and substantial form, which is welded to the stock B for turning the sod or surface plow. Stock B is a bar of iron of a suitable thickness and length, and so curved as to form the short horizontal sole or base represented by *a* in Fig. 1 of the drawings, which is in a plane parallel with the straight beam D, to which beam this stock B is fastened at *b* by a screw-bolt and nut.

E E are the handles or stilts, which are secured to the rear end of beam D by a bar which passes transversely through the beam. The two lower ends of the stilts E E project below the beam D a suitable distance, and are both bolted firmly to a curved brace, F, which proceeds below the ends of the stilts and curves upward, and is bolted securely to the beam at *c*. This upper end of the curved brace F is secured on the opposite side of beam D to the stock B.

G is an inclined bar, having its lower end curved as represented in Fig. 1. This bar is pivoted at its upper end to the stock B and also to the curved brace F by a bolt, *g*, which passes through the three parts B, F, and G, and secures them all together at one point. The bar G inclines backward from its pivot *g*, and its lower curved end rests on the bottom of the furrow, as represented in Fig. 1, and follows in the line of the landside of the stock B—*i. e.*, the lower end of this bar G is in a vertical plane with landside of the stock B. This bar G is braced in its inclined position by the adjustable rod H, which is pivoted at its upper end to the rear end of the beam at *i* and at its lower end to the bar G at *j*, as represented in Fig. 1 of the drawings. The upper end of the adjusting-rod H has a number of holes through it, which will allow this rod to be shortened or lengthened by removing the bolt at *i* and inserting it through another hole in this bar. This adjustment of rod H, which rod serves as a back brace for the bar G, will raise or depress the rear part of the plow, and by this means the plow may be made to run at any desired depth in the ground.

Fig. 2 represents my improved plow having a subsoil-shovel, J, applied to it in place of the bar G represented in Fig. 1. In Fig. 2 this bar G is removed, and the stock J′ of shovel J is bolted to the lower end of the adjustable brace H at *j* and to the curved brace at *g*. These points of connection of the shovel-stock J′ with the braces H and F hold the shovel-stock rigidly in its place. The upper curved end of shovel-stock J′ is furnished with a number of holes, and by removing bolt *g* the stock J′ may be adjusted vertically, and again fixed rigidly at the desired depth by the bolt *g*. This shovel J′ may be given any desired pitch by means of adjusting-brace H, as above described, for the bar G, and the size and shape of this subsoil-shovel J may be varied according to the nature and requirements of the work to be performed.

This improved plow is so constructed that when it is set perfectly level it will be run deeper than can be managed by a common team, its base at C being so short that when the inclined plane of wing A is loaded with earth the point would be forced down beyond control were it not for the regulating-bar G, which forms a back snpport for the plow and runs on the bottom of the furrow made by wing A.

It will be seen that by means of the brace

rod H in Fig. 1 the bar G may be set at any desired point, so as to regulate the pitch of the plow according to the requirements of the work; and in Fig. 2 this bar H, besides serving as a back brace for the shovel-stock J′, also serves to regulate the pitch of the shovel J by adjusting the brace H lengthwise.

I am aware that adjustable back braces have been heretofore used for regulating the pitch of the plow, and I do not claim such as my invention irrespective of the arrangement and combination described; but

What I do claim as new, and desire to secure by Letters Patent, is—

The curved brace F, handles E E, and bar G, in combination with the adjustable back brace, H, all arranged and operating substantially as and for the purposes herein set forth.

J. M. RODMAN.

Witnesses:
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